Town of Wellesley
Department of Public Works
Engineering Division

George J. Saraceno, Senior Civil Engineer

TO: Lenore Mahoney, Executive Secretary of the Zoning Board of Appeals

RE: Wellesley Park (40B Project)
148 Weston Road
Site Plan Review (SPR) - ZBA # 2018-24

DATE: October 29, 2018

The Department of Public Works (DPW) – Engineering Division received an application and plans from your office dated February 22, 2018 for a comprehensive permit for the redevelopment of 148 Weston Road. The civil site plans were updated on October 2, 2018. The applicant for the project is Wellesley Park, LLC. The plans contain civil, architectural, and landscaping drawings for the project. The architect for the project is EMBARC of Boston, MA. The design engineer is McKenzie Engineering Group of Norwell, MA. The application for the project includes a Transportation Impact Assessment prepared by VHB, Inc., a preliminary hydrologic assessment prepared by McKenzie Engineering Group and a geotechnical report prepared by KMM Geotechnical Consultants, LLC of Hampstead, NH.

The project is located on a 36,014 square foot site, with an existing single family house. The site is in a zoning SR15; Single Family Residential 15,000 square feet and is within the Town's Water Supply Protection District. The application proposes to construct a six-story building (83,000 gross square feet) with 55 residential units, 60 below grade parking spaces, amenity building (1,300 square feet), courtyard, fire lane and landscaping. We note that the project does not meet setbacks, building height and maximum ratio of building to lot area as required by the Wellesley zoning bylaws.

The applicant is proposing a single 24 foot wide curb opening, located along the southerly limit of the 72 foot lot frontage. This driveway will be approximately 1,500 feet distant from the Linden and Weston Street intersection, which is a significant traffic choke point, particularly during peak commuting times. No improvement to pedestrian, bicycling or vehicle traffic are proposed with the project and the location of the amenity building might limit any ability to improve the situations the town currently has with the Weston Road corridor. We note that the side of Weston Road that that the site is on is without any sidewalk or nearby cross walk that would access public sidewalks. We also note that the proposed driveway, emergency access way, and underground garage provide no ability to turn around. This might be a significant problem for large service trucks, moving vehicles, trash pickup and emergency apparatus.

The application included geotechnical information based on seven test pits, TP1 to TP7 and six borings logs. Theses logs indicate layers of sandy, permeable soils classified as fill, sand and gravel. Groundwater was encountered at depths between 11 feet and 13 feet and refusal was experienced

between 12 feet and 14 feet. It appears that the basement elevation will be above the water table and the ledge, however the plans do not show any deep excavation, such as elevator pits or other foundation work. If these are needed the applicant should identify the groundwater and ledge impacts. At this point our primary concern with the geology is that the unconsolidated nature of these soils and excavations greater than five feet for the construction of both foundations and other structures are in close proximity to the property limits. We believe that without shoring, there is a chance of an off-site property impact.

While the subject lot has recently been cleared of most of the on-site trees, the topography at the perimeter and on the abutting lots consists of gentle rolling hills on well drained soils, with a mix of evergreen and hard wood trees 40 to 80 feet tall. The lot grading is toward the rear third of the lot, with front and rear elevations having high points of 157 / 158 and a wide shallow area with an elevation of 146. One of the interesting hydrologic complications with the development plan is that the general flow of storm water in the area, including a small portion of the North 40 land is over undeveloped land with permeable sandy soils. The applicant has estimated a catchment area of 1.8 of the abutting Town owned lot combines with the subject parcel and across the wide shallow area located near the back third of the lot in a wide, non channelized bowl. The pattern continues across the rear of 140 and 138 Weston Road until it sheets across the MLP's substation access road, where it is picked up in a few catch basins. From there storm water is routed through 18 and 24 inch pipes that ultimately connect to the aqueduct. Because the proposed building bisects this natural pattern the applicant is including a 12 inch pipe around the rear perimeter of the lot so that the overland pattern can be maintained by rerouting flow around the building. The plans do not include an analysis of the proposed pipe and do not have sufficient information to determine the carrying capacity of this pipe. Additionally, this pipe is very close to retaining walls and building foundations and we are concerned that it will not be serviceable if any maintence is required in the future. This pipe terminates at a proposed 4' wide, 30' long stone infiltration trench, that is only set 1' away form both the foundation and the property line. Again we have concerns about constructability and potential for stormwater impacts both and off-site. Lastly, we wonder if an easement or other agreement is needed to assure proper maintence of this pipe, and to minimize the potential for stormwater impacts on surrounding properties.

There are other items that we feel are plan deficiencies and they are outlined below;

GENERAL

1. The applicant's designer should provide truck turning movements entering and leaving the site such as trash trucks, fire trucks, etc. Also, the site should provide accessibility for fire trucks towards the rear portion of the lot. We recommend that the accessible driveway be a hardscape material such as asphalt if emergency vehicles and fire trucks will have to turnaround.
2. The project is located in the Water Supply Protection District, which would normally require the applicant to review Section XIVE of the Zoning Bylaws and to satisfy the use regulations, Part D and design and operations standards, Part F, we recommend that the Town be supplied copies of any environmental assessments, copies for all construction

management plans and reports and materials reports for all imported material as well as any management of groundwater or stormwater.

3. The project plans should show three benchmarks, as control points for the site.
4. Setbacks between the proposed building and most property lines is as small as 4', which may be problematic during construction and will likely have impacts to trees on abutting lots.
5. Some provisions for snow storage or agreement on snow removal should be made giving the proposed density, the single access and the restricted turning.
6. The proposed twenty-four feet fire lane must be reviewed by the Town of Wellesley Fire Department to review accessibility requirements.
7. Granite curbing proposed for the driveway should include transition pieces on each side of the driveway. The designer should consider wider transition pieces for the entrance to the driveway rather than proposed curbing radius of 2.5 feet and 5 feet, which are considered residential openings and not commercial openings.
8. Provide in a table format the proposed cut and fill calculations for the project.
9. Clarify the location on the site plan of the 4-inch cleanout detail shown on the Construction Details Plan, Sheet C-5.
10. The Grading and Drainage Plan, Sheet C-2 should include spot grades for the proposed walkways around the proposed amenity building.
11. We recommend adding a single yellow pavement marking for the proposed entry driveway.
12. Revise the driveway apron detail to show granite curb transition curbing rather than bullnose curbing on the Construction Details Plan, Sheet C-4.
13. Provide a sediment and erosion control plan for the project.
14. The applicant should include a construction management plan that shows material staging, stone pad at the entrance to the site for washing construction vehicles, on-site parking, refueling area, storage containers, etc.
15. The Construction Management Plan should contain information regarding quantity, type and schedule of construction deliveries, construction workers, vehicles, estimates for import and export of soils and work hours. The Town of Wellesley Police Department must review the Traffic Management and Construction Management Plan.
16. Cleaning of concrete trucks and equipment shall take place within the construction site, in an area that should be shown on the Construction Management Plan.
17. A foundation drain location, sizing and outlet information should be clarified on the plans.
18. Asbestos pipe found during excavation on the property must be disposed of according to MADEP 310 CMR 4.00.
19. Information included in the geotechnical report, including the proposed building profile, proposed finish grade, garage slab elevation and footings should be shown on the plans and the discrepancy between the grades for the finish floor elevation and garage floor slab should be corrected.
20. The existing trees, particularly those that are will be preserved with the project should be labeled with species and size, further we feel some tree clusters may be missing from the survey.

WATER & SEWER

1. The location of the proposed water line would be difficult to construct as it is too close to the property line. The proposed location of the water line would require a construction easement and may impact abutting property.
2. On the Utilities Site Plan, Sheet C-3, show the invert elevations at the building and connecting to the existing sanitary sewer main in the street on Weston Road. Include the slope of the pipe and direction of flow. An outside cleanout should also be added to the plan, including a detail of the cleanout. The proposed sewer pipe requires a sewer manhole at every bend in the pipe.
3. Are utility connections required for the proposed amenity building?
4. We recommend a six-inch fire protection service line and valve prior to connecting into the building and a two inch tap of the six-inch fire protection service line for domestic water to the building. The domestic water line should include a valve prior to the building connection.
5. Show the location of the proposed cross-connection/back flow preventor controls and water meter. Provide a detail of the backflow preventer considered for this project.
6. We do not allow doghouse manholes as proposed for the sanitary sewer manhole on Weston Road.

STORMWATER

1. Stormwater runoff from adjacent Town land to the northeast travels through the rear portion of this project site, which would be rerouted by the proposed building. The applicant's designer should explain how the proposed project site allows manages the additional stormwater runoff.
2. Clarify the need and outlet location of any dewatering pipes.
3. The proposed drainage structures should be labeled and shown in a table with the rim and invert elevations provided.
4. On the site, overland flow from stormwater will be conveyed to a proposed infiltration system comprised of 81 Cultec R-330XLHD chambers. On the Recharger 330XLHD Detail Plan, Sheet C-6, it should be noted that the proposed Cultec chambers must be have an H20 load rating.
5. The Hydrologic Analysis for the project shows that the post-development peak rate and volume of stormwater runoff for the site is less than the pre-development runoff for the 2-yr, 10-yr, 25-yr and 100-yr design storm. The catchment area analyzed includes lots 254A and lot 254B, 113,180 square feet, as shown on the Pre-Development Watershed Plan, Sheet WS-1.
6. Provide an Operation and Maintenance Plan for the project that includes a statement that maintenance logs shall be provided to the Town Engineer on an annual basis.
7. A National Pollution Discharge Elimination System Construction General Permit (NPDES CGP) is not required for the project because the project disturbs less than one acre of land.

LANDSCAPING

1. The Site Development Plan, Sheet C-1, should show the existing trees to be removed. The plan should also show tree protection for the site and details.
2. Provide a landscape plan that shows the plant schedule including the quantity of plants proposed for each item.
3. Provide a shrub and tree planting detail and state that shrubs and trees should be hand watered during planting.
4. Consider specifying natives for all proposed plantings.

Please feel free to contact me with any questions or comments.

Sincerely,

George J. Saraceno
Senior Civil Engineer

cc: Michael Pakstis
William Shaughnessy
David Hickey
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Michael Zehner
Michael Grant
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